



EW-13.07

1/FW

1624

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Crescenzi et al.

Serial No.: 10/540,449

Art Unit:

1624

Docket No.: ITR0046YP

Filed: June 22, 2005

Examiner:

Moore, Susanna

For: TETRAHYDRO-4H-PYRIDO[1,2-a]PYRIMIDINES AND
RELATED COMPOUNDS USEFUL AS HIV
INTEGRASE INHIBITORS

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

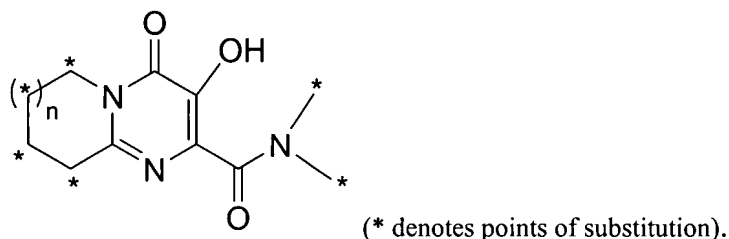
RESPONSE TO RESTRICTION REQUIREMENT

Sir:

EXPRESS MAIL CERTIFICATE
DATE OF DEPOSIT April 18, 2007
EXPRESS MAIL NO. EV835855-081025
I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS
BEING DEPOSITED WITH THE UNITED STATES POSTAL
SERVICE AS EXPRESS MAIL. POST OFFICE TO ADDRESSEE
ON THE ABOVE DATE IN AN ENVELOPE ADDRESSED TO
COMMISSIONER FOR PATENTS, P.O. BOX 1450,
ALEXANDRIA, VIRGINIA 22313-1450.
MAILED BY *Susanna Moore*
DATE *4-12-07*

This communication is in response to the Office Action mailed March 16, 2007 which set a one-month period for response that expires on April 16, 2007. Claims 1-14 and 16 are pending. At the outset it is noted that the Office Action refers to pending claims 1-17. Claims 15 and 17 were canceled in the preliminary amendment filed on June 22, 2005.

The Examiner has required restriction under 35 U.S.C. § 372 to one of Groups I to IV listed on page 2 of the Office Action. Group III (claims drawn to Formula A with $n = 2$) is hereby elected with traverse. The Examiner has asserted that the inventions set forth in Groups I to IV are not so linked as to form a single general inventive concept under PCT Rule 13.1. Applicants disagree. Unity of invention exists when the same or corresponding special technical feature defining a contribution over the prior art is present in each of the inventions. The special technical feature present here is the fused bicyclic hydroxypyrimidinone carboxamide core that is present in all compounds of the invention and is considered essential to the activity of the compounds as HIV integrase inhibitors:



The size of the ring fused to the hydroxypyrimidinone moiety varies with the value of n ($= 0, 1, 2$, or 3), but this variation does not destroy unity. The special technical feature present in each invention need not be the same; it need only be corresponding, and clearly the special technical features in the compounds of Groups I-IV are corresponding. Accordingly, there is unity of invention.

Assuming strictly for the sake of argument that the claims lack unity of invention (they do not), there is no serious burden in conducting a search of all the compounds embraced by Formula A in the same application. All of the claimed compounds have a structural core and substitution pattern more remarkable for their similarities than their differences. It is both possible and eminently sensible to search on all the compounds in this application, because any reasonably comprehensive search for information relevant to one group of compounds would inevitably require a search for information relevant to compounds with corresponding structural features but pigeon-holed in different groups. Simply put, there would be so much overlap in the searches that it would be far more efficient to conduct a single search in this application than to conduct substantially the same search in 4 separate applications. As the Examiner surely knows, given the substantial structural features shared by all of the claimed compounds, they can all be searched efficiently using the sub-structure search capability available on a commercial database such as Registry on STN. There is no undue burden.

In view of the above remarks, withdrawal of the restriction requirement is requested.

Information Disclosure Statement


Accompanying this response is an information disclosure statement (IDS) listing US 7169780 (which corresponds to US 2005/0025774 listed in the information disclosure statement filed April 24, 2006) and US 2006/0258860 (a divisional of US 7169780; allowed - issue fee paid; Docket No. ITR0034YPDA).

The Examiner's attention is also drawn to USSN 11/641508 (filed December 19, 2006; Reference No. ITR0034YPDB) which is a pending divisional of US 2006/0258860.

No fees are believed to be due for either the response to the restriction requirement or the submission of the accompanying IDS. Nonetheless, authorization is hereby given to charge any fees which may be due as a result of the submission of this response or the IDS to Deposit Account No. 13-2755.

Respectfully submitted,

By:



Kenneth R. Walton, Reg. No. 32,951

Attorney for Applicants

MERCK & CO., Inc.

P.O. Box 2000

Rahway, New Jersey 07065-0907

Tel.: (732) 594-3462

Date: April 12, 2007